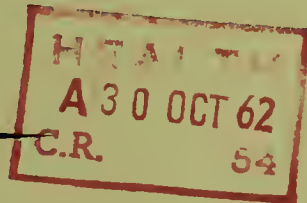


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Rural District of South Westmorland



ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR

1961

KENDAL
TITUS WILSON & SON, LTD.
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Kendal 1296.

Stricklandgate House,
P.O. Box 18,
Kendal.

*To the Chairman and Members of the Rural District Council
of South Westmorland.*

SIR, LADIES AND GENTLEMEN,

I have the honour to submit to you my Annual Report upon the health of the Rural District for the year 1961.

I wish to acknowledge the help and ready co-operation of my colleague the County Medical Officer of Health, and also the assistance afforded to me by the local general medical practitioners.

I am indebted also to the Chief Public Health Inspector and his staff for the spirit of teamwork which exists in my department, and for the fund of local knowledge which they have laid at my disposal.

I have the honour to be,

Sir, Ladies and Gentlemen,

Your obedient servant,

FRANK T. MADGE,

Medical Officer of Health.

NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

Area of the Rural District in acres	151,007
Population (Registrar-General's mid year estimate)	18,900
Inhabited houses	6,189
Rateable Value	£225,337
Product of a Penny Rate	£906
Rate in the Pound levied	19/6d.
of which the County Rate was	15/5d.

The Rural District of South Westmorland is a pleasant rolling countryside which rises from sea level in the south to nearly a thousand feet in the north. The shore-line extends for about 14 miles along the estuary of the River Kent, flat and marshy in the north, but with picturesque wooded slopes on the south.

The District is divided into three main valley areas by the two ridges of Scout Scar and Killington, which run north and south across the centre of the southern portion of Westmorland. On the west lie the Winster and Lyth valleys, in the middle lies the valley of the Kent, and on the extreme east lies the Lune Valley.

The dividing ridge of Scout Scar is sharp and barren, but the larger watershed which runs from Hutton Roof in the south to Whinfell in the north is rolling upland more suitable for agriculture. In the extreme north of the District is the high barrier of the central massif of Westmorland. These geographical features determine the natural lines of communication and therefore the spread of infectious disease.

The geology of the Rural District is sharply divided by the great fault which runs from Kendal in the north to Burton in the south-west and Kirkby Lonsdale in the south-east after branching near Crooklands. The country to the north-east of this fault consists of Kirkby Moor Flags in the Upper Ludlow Series of the Silurian System, with appreciable deposits of glacial drift. The rocks to the west of the fault are carboniferous limestones, with some of the Yoredale Series in the extreme south. The valleys contain some alluvial deposit and some glacial drift. These geological characteristics are of great significance in the supervision of water supplies, sewerage and occupational disease as well as affecting the economics of the District.

The climate is mild and equable, though invigorating on the uplands. The valleys are sheltered from the prevailing westerly winds, and their southern aspects provide full access to sunshine. Temperature gradient inversions are occasional in spring and autumn but are soon dispelled in the mornings. The rainfall varies between 40 and 50 inches a year and light falls of snow may be expected for one or two weeks in the late winter.

The District is mainly agricultural in character and many of the

small local industries and crafts are ancillary to agriculture. There are also the following industries which provide much employment and bring prosperity to the villages.

Paper Mills.	Wood Turning.
Woollen Mills.	Stone Quarries.
Mat Making.	Tarmacadam Manufacture.
Comb Making.	Cardboard Box Manufactory.
Milk Depots.	Condensed Milk Factory.
Furniture Factory.	Diatomaceous Earthworks.

In addition to these local industries the District receives seasonal tourist business at Arnside, Kirkby Lonsdale, and those northerly parts of the area which lie within the Lake District. The variety of these opportunities for local employment has stopped the drift from the countryside and has kept South Westmorland happily free from unemployment which is a most important factor in the maintenance of public health.

STAFF.

Name.	Qualifications.	Office.	Whole or Part Time.	Other Offices.
Madge, F. T.	M.D., Ch.B., M.R.C.S., L.R.C.P., D.P.H.	Medical Officer of Health	Part	M.O.H. Combined County Districts of Westmorland
Ball, G. H.	M.A.P.H.I., M.R.S.H.	Chief Public Health Inspector and Housing Manager	Part	Building Surveyor
Aldersley, W. H.	M.A.P.H.I.	Deputy Public Health Inspector	Whole	
Shepherd, D.	F.A.P.H.I., F.F.S.	Additional Public Health Inspector	Part	Public Health Inspector to Windermere U.D.C.
Moss, H.	—	Clerk	Whole	—
Beveridge, K. A.	—	Clerk	Whole	—
Machell, B. M.	—	Clerk to Medical Officer of Health	Part	Clerk to M.O.H. Combined County Districts of Westmorland

Staff Changes.

There were no staff changes during the year.

COMMITTEES.

The Minister of Health requires me to include a list of your Council's committees which are concerned with matters of public health.

The Public Health Committee deal with the principal matters, but there are other aspects of public health importance which are dealt with by the Water and Housing Committees.

VITAL STATISTICS.

The following extracts are made from information supplied by the Registrar-General with figures for 1960 for comparison.

Area of the District in acres ... 151,007

	1960	1961
Estimated civilian population (mid year) ..	18,310	18,900
Live Births. Legitimate— males	139	139
females	143	122
Illegitimate— males	8	14
females	8	6
Total	298	281
Crude Rate per 1,000 population	16.2	14.8
Corrected Rate per 1,000 population	17.6	16.1
Birth Rate for England and Wales	17.1	17.4
Illegitimate Birth Rate per 1,000 population .. ..	.87	1.05
Illegitimate Birth Rate per 1,000 live births.	53.6	71.1
Still Births. Legitimate— males	3	4
females	—	—
Illegitimate— males	—	—
females	—	—
Total	3	4
Total (live and still) births ..	301	285
Rate per 1,000 total (live and still) births	10	14.03
Rate for England and Wales ..	19.7	18.7

	1960	1961
Deaths, males	108	111
females	92	129
Total	200	240
Crude Rate per 1,000 population ..	10.9	12.7
Corrected Rate per 1,000 population	9.4	11.4
Rate for England and Wales ..	11.5	12.0
Infantile Deaths (under 1 year)		
Total deaths under 1 year.. ..	3	3
Rate per 1,000 live births	10.06	10.6
Rate for England and Wales ..	21.7	21.4
Legitimate	3	3
Rate per 1,000 legitimate live births	10.6	11.4
Illegitimate	—	—
Rate per 1,000 illegitimate live births	—	—
Neonatal Deaths (under 4 weeks)		
Total neonatal deaths	3	2
Rate per 1,000 live births	10.06	7.1
Rate for England and Wales ..	15.6	15.5
Early Neonatal Deaths (under 1 week):		
Total early neonatal deaths	3	1
Rate per 1,000 live births	10.06	3.5
Perinatal Mortality		
Stillbirths and deaths under		
1 week.. .. .	6	5
Rate per 1,000 total (live and		
still) births	20	17.5
Perinatal Rate, England and		
Wales.. .. .	32.8	32.2
Maternal Mortality:		
Total Deaths	—	—
Rate per 1,000 total (live and		
still) births	—	—
Rate for England and Wales ..	0.39	0.33

Deaths from certain causes:—						1960.	1961.
Cancer	...	...	...	...	...	32	39
Measles	...	...	...	...	...	Nil	Nil
Whooping Cough	...	...	...	...	...	Nil	Nil

The main causes of death were:—

Heart Disease	...	...	...	...	...	94
Cancer	...	...	...	...	...	39
Vascular lesions of nervous system	...	...	...	...	...	37

COMMENTARY ON THE VITAL STATISTICS.

The 1951 Census revealed a population of 17,776 persons which was 228 more than in the same area in 1931, and reflects a very stable total population, although it masks the effect of migration. The census showed that only about 55 per cent of the people in Westmorland were born in the County. The greatest invasion, particularly in South Westmorland, was from Lancashire, some 14 per cent overall.

A proper perspective cannot be obtained by considering merely one year's changes. It is the general trend of population which is important for the planning of your future housing, water and sewerage requirements, and for the broader issues of the economic prosperity of your District.

Before the second World War you were a declining community, not only showing less births than deaths, but also drifting steadily each year out of the countryside. For the past decade you have maintained your population by your own reproduction and I hope this encouraging sign will continue.

I believe that the setting up of a better basis for agriculture in the national economy has checked the drift from the countryside, and has encouraged your young folk to renew their faith in country life by settling down and undertaking the responsibility of a family.

The preliminary figures for the 1961 Census suggest that the tide of migration has turned during the past ten years. Your population has gone up 6.5 per cent, and the number of private households has risen 11.6 per cent during that decade. We shall have to await the final statistics before we can see the full pattern of the changes.

The 1951 Census also showed that there was a daily tidal flow of 2,195 people in and out of your District, made up of 1,349 residents who go elsewhere to work, and 846 outsiders who come into South

Westmorland by day. The figures illustrate to some extent your provision of dormitories for Kendal's over-spill. 900 of your inhabitants go every day to work in the Borough, and another 302 commute into Lancashire. On the other hand Kendal sends 570 of its residents out into South Westmorland to work. The remainder of the immigrant commuters come from Lancashire and other foreign parts.

This daily interchange of talent probably reflects the rigidity of housing policy, and no doubt offers a glimpse of broader horizons and a wider range for the choice of marriage partners. Such population movements are of very significant importance in maintaining the public health. It will be interesting to see if the 1961 Census figures reveal that a different pattern has developed during the nineteen-fifties. I suspect it will.

Birth Rate.

Your birth rate fluctuates around the national average, with a tendency to rise.

Still Birth Rate.

This showed a slight rise.

Death Rate.

Your corrected death rate was below the national average. The proportion of old people in your community is likely to increase markedly during the next decade.

Infant Deaths.

Infant deaths include all the children who were born alive but who died under one year of age. At the beginning of this century your infantile mortality rate was over 100 deaths per thousand live-births. The rate has fallen steadily during the past sixty years down to your present level.

Your figures of any one year are too scanty to carry any great statistical significance, but as the trend runs parallel to that for England and Wales I consider that they reflect a very satisfactory improvement in child-care by the local doctors, nurses, and above all by the young mothers in their homes. I hope that this happy long-term trend will continue.

Neo-natal Deaths.

Because the infantile mortality rate was found to be rather a crude quotation of the odds against a baby surviving the whole of the first year, the Registrar-General then provided the statistics for children who were born alive but who died under four weeks of age.

This neo-natal mortality rate makes some attempt to separate the deaths which are due to factors connected with pregnancy, abnormal development, and child-birth, which are more likely to cause death within the first month, from factors connected with infant management and infections, which are more likely to cause death between one month and one year.

Once again your figures for one year are too scanty to hold any statistical significance. They may be of value when they can be viewed over a much longer period.

Early Neo-natal Deaths.

In a more detailed endeavour to analyse the causes of death, the Registrar-General now provides statistics of babies who are born alive but who die in their first week. The significance of this group is discussed in the next section on peri-natal mortality.

Peri-natal Mortality.

There is often not much difference between the cause of a baby dying in the first week of its life and the cause of a still-birth. Sometimes it is a matter of chance whether such a baby dies before delivery or after. So we now add the number of still-births to the number of babies dying in their first week, and we call it the peri-natal mortality: in popular language, the deaths which happen around the time of birth. The more precise limits are between the beginning of the twenty-eighth week of pregnancy and the end of the fourth week after delivery.

Anyway, the peri-natal mortality statistics include most of the fatalities which are caused by abnormalities of the baby as it develops in the womb. Some of those may be due to the mother catching infections during a critical phase in her pregnancy; or more rarely to drugs: or more commonly to some genetic factor. The statistics include the fatalities which are caused by toxæmias of pregnancy and accidents within the womb. The mechanical stresses and strains of delivery, the attention given to the new-born child, the blood peculiarities, and even the risks of accident and infection in the first week of life, are all included factors. So the peri-natal mortality rate is perhaps better regarded as a measure of obstetric achievement.

There is no future for a still-birth, and what happens to a live baby in its first four weeks depends to a great extent on what has happened to it before delivery.

There are some signs of hope that science may be able to prevent certain types of developmental abnormalities, and it is clear that the increased availability of obstetrical specialists will help to reduce the number of neo-natal deaths. An advisory obstetric committee has been set up in Westmorland to co-ordinate the functions of the three divisions of the health service involved in midwifery, and to investigate the causes of still-births and infant deaths.

Maternal Mortality.

There were no maternal deaths.

PREVALENCE AND CONTROL OF INFECTIOUS AND OTHER DISEASES.

Public Health Act, 1936. Sections 143-170.

National Health Service Act, 1946. Part III.

The general incidence of illness can be assessed by the weekly number of new claims for sickness benefit at our local National Insurance offices. A logarithmic graph of those figures shows a regular seasonal pattern over the years, and any variations are usually worth investigating. The general level is some measure of the local community help.

It is pleasing to record that the notification of infectious disease has much improved in recent years, and I am very grateful to my colleagues in general practice for their prompt help in this respect. I look upon the control of notifiable diseases as one of the most important duties of our department.

The main feature of 1961 was a big epidemic of measles, with 847 notified cases. The outbreak had started just before Christmas in the previous year, in the villages surrounding Kendal, and smouldered on from place to place right up to midsummer. The only major flare-up occurred in Kirkby Lonsdale and the Lune Valley, when March 1961 saw most of the susceptible children of that area go down with the disease. Fortunately the infection was mild and there were no deaths.

Whooping cough occurred sporadically throughout the District, and there were more cases than usual of acute primary pneumonia, all in the older age groups.

The second half of the year was comparatively quiet.

NOTIFIABLE DISEASES TABLE.

	Total	Ages										Admitted to Hospital	Deaths	
		-1	1-	2-	3-	4-	5-	10-	15-	20-	35-			45-	65-
Scarlet Fever	3	-	-	-	-	-	3	-	-	-	-	-	-	-
Whooping Cough ..	45	6	3	2	3	3	18	9	1	-	-	-	-	-
Measles	847	9	46	64	56	57	418	157	30	8	1	1	-	-
Dysentery	3	-	-	-	-	-	1	1	1	-	-	-	-	-
Acute Pneumonia ..	29	-	-	-	-	-	1	1	-	1	2	10	14	-
Erysipelas	1	-	-	-	-	-	-	-	-	-	-	1	-	-
TOTAL	928	15	49	66	59	60	441	168	32	9	3	12	14	-

Mountain Accidents.

Accidents, on our mountains are of a special hazard in the Lake District, and your northern areas around Kentmere and Longsleddale are no exception. A regular toll of death and suffering happens every year. Most of those accidents are preventable, and they mostly affect our visitors.

The inexperienced, the unlucky, and the foolhardy fall out of crags while rock-climbing, lose themselves in the dark and the mist and the snow. The physically unfit die of exhaustion, exposure, and the heart-attacks which catch up with them sooner than need be. The suicides make their last gesture to the emotional appeal of the mountains.

Someone has to turn out to look for them, and rescue them, and bury them. A magnificent local organisation of search and rescue teams has been built up in the District to meet these demands. But we wish that trade might not be so brisk.

A campaign for the prevention of mountain accidents has been organised not only in your District but also back into the big towns from which our visitors come, and to a wider audience on the radio and television. We hope it may help.

TUBERCULOSIS.

Tuberculosis is the most important communicable disease of our time. Its prevention is primarily dependent upon social and economic factors in the general community, and secondarily upon the management of the established case. Your Council's functions are threefold; to investigate the source of infection, to prevent the spread of infection and to remove conditions favourable to infection.

The number of tuberculosis patients at the year end were:—

		1960.	1961.
Respiratory	...	65	49
Non-Respiratory	...	11	11
		—	—
		76	60
		—	—

During the spring of 1961 we had another of the periodical visits of the Mass Miniature Radiography Unit of the Manchester Regional Hospital Board. Only those over 15 years of age were accepted for X-ray examination in this survey.

This time the Unit visited three extra villages where it had not called before. They were Burton, Arnside and Holme. The following figures show the attendances in your area:—

Burneside	...	387
Staveley	...	262
Summerlands	...	103
Holme	...	83
Bela Prison	...	177
Burton	...	111
Milnthorpe	...	506
Arnside	...	115
Kirkby Lonsdale	...	501

I should like to see many more of our local population take advantage of this valuable service. It not only detects pulmonary tuberculosis at the most favourable time for a cure, but it also provides an early warning against many other chest conditions, lung cancer, and certain heart diseases.

The results for the 11,206 persons X-rayed in the Kendal, South Westmorland, Lakes and Windermere tour were that 13 cases of active pulmonary tuberculosis were discovered in the whole area: six of them were in the groups examined from factories and offices, and seven cases were among the general public who volunteered for X-ray. Ten were men and three were women. This is rather a high rate for a predominantly rural region, being 1.8 per thousand, as against 0.97 per thousand at the previous survey in 1957. All these 13 cases needed either close clinic supervision or treatment in hospital. Waiting-time is nowadays very short for admission to hospital, and modern drugs achieve most promising results for returning the patient to a useful working life.

Twelve other cases of non-active pulmonary tuberculosis were revealed, requiring only occasional out-patient supervision. It is especially important to discover these cases so that we can do all in our power to prevent them breaking down into a more active state.

Four cases of malignant cancer of the lung and two cases of non-malignant growths were found, and over over 80 cases of abnormalities of the heart.

TUBERCULOSIS TABLE.

Age Periods	NEW CASES				DEATHS			
	Respira- tory		Non-res- piratory		Respira- tory		Non-res- piratory	
	M	F	M	F	M	F	M	F
0 ..	—	—	—	—	—	—	—	—
1 ..	—	—	—	—	—	—	—	—
5 ..	—	—	—	—	—	—	—	—
15 ..	—	1	—	—	—	—	—	—
25 ..	—	1	—	1	—	—	—	—
35 ..	—	1	—	1	—	—	—	1
45 ..	1	—	—	—	1	—	—	—
55 ..	1	2	—	—	—	—	—	—
65 ..	—	—	—	—	—	—	—	—
Total ..	2	5	—	2	1	—	—	1

Such discoveries more than justify the visits of the Mass Radiography Units to our area at regular intervals. I think that we should do all we can to make really excellent arrangements for their reception in our villages, and encourage our local people to turn up in full force for their chest X-rays.

The Hospital Services.

National Health Service Act, 1946. Part II.

Your District lies in the area of the Manchester Regional Hospital Board, and most of the general need of our local people have historically been met by the Westmorland County Hospital at Kendal. Some of the more specialised services have always had to be referred to more distant centres. But there are signs of change ahead.

The Government's national policy to develop what are to be called District Hospitals seems likely to mean that our local folk will have to rely more and more on Lancaster, and less on Kendal, as the Hospital Plan comes into effect in the next ten years.

Some people think that Westmorland risks being left rather ill served if the hospital services concentrate themselves on Lancaster and Carlisle. There is a lot of territory in between, and transport communications are not very easy for out-patients and visiting relatives to get to those hospitals and home again.

On the whole the Regional Hospital Boards have very much neglected public relations during their thirteen year of existence, and consultation with local opinions and feeling has been rather poor. It does not seem too unreasonable for the man in the street to ask whose hospitals are they anyway? The hospital service might do well to foster a closer relationship with the ordinary people they claim to serve.

Another facet of this same problem arose during 1961 when the published intentions of the Manchester Regional Hospital Board seemed to imply that all the maternity and ante-natal beds to serve our District would be concentrated at Lancaster, and that Helme Chase Maternity Home at Kendal might be closed within ten years. After strong representations by all the county district councils in southern Westmorland, an assurance was given by the Manchester Regional Hospital Board that Helme Chase should continue to be available in Westmorland. Public sentiment seemed to be particularly strong about preserving some maternity beds in a place where the local women wanted them.

I think that the Regional Hospital Boards are gradually becoming more sensitive to public opinion, and no doubt there will have to be give and take on both sides before the new Hospital Plan assumes its final pattern for serving those ordinary folk who pay their taxes to cover the enormous cost of the experiment. Such philosophies have a considerable impact upon the public health.

Hospital and Ambulance Arrangements for Infectious Diseases.

National Health Service Act, 1946. Parts II and III.

Hospital accommodation for infectious disease is provided by the Manchester Regional Hospital Board at Beaumont Hospital, Lancaster, a modern and well-equipped building within easy reach of this area under modern transport conditions.

Smallpox cases will be admitted to the Ainsworth Smallpox Hospital near Bury.

Ambulance transport for cases of infectious diseases is provided by the Westmorland County Council and is based in Kendal.

Disinfection Arrangements.

Steam disinfection of suitable articles has been available in the Borough of Kendal. In the more scattered parts of the District reliance has to be placed upon disinfection with formaldehyde.

HOUSING.

Under the Housing Acts your Council has a duty to consider the general housing conditions in your district, to ascertain whether any are unfit for human habitation, and to assess the need for further houses. You have powers to deal with unfit houses, powers to provide new houses for all classes, and various powers and duties in the management of your Council's estates. Good housing conditions are an integral part of public health.

Present Housing Position.

There were 6,189 inhabited houses at the end of the year. With an estimated population of 18,900 the average number of persons per house is 3.05, which is not a high figure. There were no cases of legal overcrowding within the strict definition of the Housing Act, which assumes that living rooms are used for sleeping purposes and that sexes can be segregated irrespective of age, health or family relationships.

At the time of the 1951 Census there were 5,150 private households living in 5,058 structurally separate dwellings. By the 1961 Census the preliminary data show a rise to 5,759 private households in 6,064 dwellings. Those figures represent an increase of 19.9 per cent in private dwellings.

General Progress of Slum Clearance and Improvements.

Westmorland as a whole has made very encouraging progress in post-war slum clearance despite all the difficulties of the times. Since the campaign was resumed in 1948 well over 1,000 houses in the County have been dealt with by formal action under the Housing Acts. Most of these will eventually be demolished or converted to trade use, but some of them have been reprieved by their owners undertaking to spend considerable money for comprehensive reconditioning up to modern standards.

In addition to those formal actions there have been a very creditable number of informal schemes for the renovation of substandard houses, either with the aid of improvement grants or entirely by private enterprise. The aim is to save a house wherever possible, but if it cannot be brought up to an acceptable standard of safety, decency and amenity, the sooner it is swept away the better.

The Housing Repairs and Rents Act, 1954, required your Council to declare their proposals for dealing with sub-standard houses. You resolved to deal with the estimated 250 unfit houses within the ensuing 10 years. The programme was divided into two five-year periods, ending respectively in December 1960 and 1965.

Excellent progress was made during the first five-year programme. When the Minister called in Circular 2/60 for the reassessment of all second five-year programmes, your Council were able to declare that their slum clearance task will be completed within the time limit of 31st December, 1965.

Much of our good fortune was due to the fact that your Council got a flying start with slum clearance after the war. In fact we had already undertaken 171 actions between 1945 and 1955 before the Minister called for the declaration of a statutory programme. Of course there will be other houses deteriorating with the passage of time, but at the moment we can say with justifiable pride that we have got well on top of slum clearance.

Closing Orders.

Housing Act, 1957. Section 18.

Two closing orders were made during the year, and three were determined. There were 35 closing orders in force at the year end, and included in this figure were 11 orders which have not yet been complied with and are still houses in occupation.

Undertakings not to use for Human Habitation.

Housing Act, 1957. Section 16.

No formal undertakings were accepted by your Council during the year. At the year end the number of such undertakings in force was 74, and 18 of these houses were still occupied.

Undertakings to Perform Works.

Housing Act, 1957. Section 16.

Two undertakings were offered during the year and seven were satisfied by completion of the reconditioning. The number outstanding at the year end was 12.

Demolition Orders.

Housing Act, 1957. Section 16.

No demolition orders were made during the year. Good progress was made with the 18 cases carried forward from the previous year: three were demolished, five were reconstructed as houses, and two were converted for agricultural and garage uses.

At the year end there were eight cases outstanding, only two houses being occupied.

Clearance Areas.

Housing Act, 1957. Section 42.

During 1952 I made Official Representations against two areas of sub-standard property in Staveley. One area included the six cottages in Alec Row and the other was composed of two houses in The Square. Your Council decided to proceed by compulsory purchase orders, and, after a Public Enquiry in 1953, the Minister confirmed the order. Rehousing all the occupiers was a slow business, but now I have pleasure to record that both these areas were finally cleared in 1961.

In 1955 I made an Official Representation against a small area at Bridge End, Old Hutton, a jumble of decaying property on a site where satisfactory reconditioning would be both difficult and costly. Formal Inquiry was held during 1956 by the Minister of Housing and Local Government into your Council's clearance order, and the latter was confirmed with modifications to exclude certain premises. At the year end one of the houses at Bridge End was still occupied by a very

old lady. Your Council have been reluctant to disturb her against her wishes, but she is holding up the demolition of the whole block.

Improvement Grants.

Housing Act, 1957.

If the process of natural decay is not allowed to go too far there are often opportunities for reconditioning to modern standards. The Housing Act, 1957, offers considerable financial aid to owners for reconditioning houses. I hope that full advantage will be taken of these opportunities so that houses will not be unnecessarily lost and the architectural traditions of the district may be maintained.

The administration of this Act has taken up much time but considerable progress has been made.

Up to the end of the year 319 applications had been made for Discretionary Grants, and 252 were completed. Standard Grant applications totalled 82, of which 53 were completed.

Altogether £65,822 has been paid in those grants over the whole period of their availability up to 31st March, 1962.

Estimated Requirement for New Houses.

Housing Act, 1957. Section 91.

You will remember that your post-war demand was estimated to be about 1,100, made up of about 350 condemned and condemnable houses and about 570 needed for agricultural workers, and for the provision of a house for each family unit.

By the end of 1961, 1,262 houses had been built by the combined effort of your Council and private enterprise, and a further 65 were under construction.

It is not so easy to estimate future requirements because the picture is complicated by overspill from Kendal and by migration. The figures for dormitory use of your district are set out in the commentary on the vital statistics in this report. Furthermore, your immigration figures show how labour follows the houses and scope for expansion is largely in your own hands.

But one need is quite certain at the present time: the need to rehouse the people in your slum clearance programme, the need to rehouse them in the right localities and in houses of the right size. The Minister of Housing and Local Government, in August 1961, requested in Circular 37/61 that local authorities should give priority

in building for slum clearance, aged persons, and for the rehousing of families living in badly overcrowded and squalid conditions.

In order to plan for future house building, your Council called for a special interim survey of the rehousing needs for slum clearance. The final result showed that about 40 new homes are needed for that purpose, about half of them being the one-bedroom type and the remainder either two- or three-bedroom size.

The slum clearance rehousing need was then reconciled with the housing applications for aged persons and general need, about another 80 in number. So the total new housing need was reckoned to be about 120, and again the figures were analysed by each of your parishes.

The average annual number of relettings of existing Council houses was estimated to be about 22. Consequently, it was thought that the total rehousing need of about 120 might be met by building some 60 new houses, and putting the other half into relets during the next three years. Your Council were still considering these suggestions at the year end.

Housing Building Progress.

Since 1948 your Council have built 733 houses, and another 529 houses have been put up by private enterprise.

Your Council completed four flats during the year. Private enterprise completed 67 houses in the same period and a further 45 were under construction at the year end. Conversions in existing houses produced 13 additional units.

Selection of Tenants.

Selection of tenants for Council houses is done by a system which consists of an initial application form renewed every nine months, and then the facts are checked when houses become available in the District required. A sub-committee chooses the tenants with the help of the local Councillors. The system seems to work reasonably satisfactorily.

The selection of tenants for rehousing under your slum clearance programme is a difficult task, but steady progress is being made. They often have very mixed reasons for wanting to get out or wanting to stay.

The Housing Department made a particularly interesting and valuable analysis of the basic reasons why people applied to your Council for a house at the present time. I think that the facts are well worth quoting: these were the approximate percentages for the reasons:—

To avoid having to live with in-laws	...	...	31%
Because present house lacks amenities	...	...	15
To avoid insecurity of a tied house	...	...	9
To avoid having to live in hired rooms	...	...	8
Because present house is too small	...	...	8
Because present house is too big	...	...	6
Would like to live in the country	...	...	6
Would like to live nearer workplace	...	...	4
Present house unsuitable for children	...	...	4
Under notice to quit	...	...	3
Because of medical reasons	...	...	2
Living in caravans or temporary huts	...	...	2
Because the rent is too high	...	...	2

It is a striking social commentary on our times that half these people simply want to set up a home of their own with as much privacy and sense of security as they can. Living with in-laws seems to cause the most heartburning: the music-hall image of a mother-in-law seems impossible to live down.

It is also rather ironic that the number of people in houses too small for them is almost balanced by those whose houses are too big. Of course, the remedy of a straight swop is usually too difficult to arrange in a wide rural district. But I often wonder if our Councils could not do more to encourage a bit of voluntary reshuffling from time to time, both inside and outside the Council housing estates, and perhaps even with Kendal Borough and Windermere.

The small number of outstanding cases with medical reasons is a tribute to the sympathetic way your Council have dealt with these difficulties in the past. I realise that some of them are hard to remedy, particularly where a cripple or someone with a bad heart needs a bungalow or ground-floor flat in some reasonably level part of the District. I, and the people concerned, are grateful for the measure of priority that can sometimes be given to help.

Housing Management.

Your Council owned 800 occupied houses at the year end, and housing management in the District is under the control of the Chief Public Health Inspector and Building Surveyor, an arrangement which, in my opinion, is most satisfactory; it ensures that unsatisfactorily housed persons, who are either in sub-standard dwellings or grossly overcrowded are given due consideration and not overlooked. The arrangement also permits the technical officer most concerned having control

of repairs and ensures that the property is well maintained. About £6,000 was spent on repairs during the year.

During 1958 a special survey was made to see how your Council's houses were actually being used on the larger estates. The result made it startlingly clear that many of the houses were underoccupied. Your Council's policy will swing towards less bedrooms in new houses or flats, so that there will be better chances to reshuffle tenants according to their needs.

A modest start was made in providing direct labour for maintenance. Some of your Council's staff have been engaged on repairs, bricklaying, masonry, plastering and slating. The open spaces on your housing estates are difficult to maintain with the present staff and you may need to provide more help in the future. The rents of your Council houses vary from 13/3d. to 26/- per week, exclusive of rates, and the rateable values are between £9 and £26.

The examination of rentals and rates may not seem at first to have much to do with public health, but it does have considerable significance. It is not unknown for persons who have been rehoused from poor quarters into modern Council houses to have to pay their rents and rates from the portion of their income which rightly belongs to the purchase of food. Domestic economy can effect the general standard of the public health almost as much as environmental conditions, and some attempt must be made to maintain a balance between these conflicting factors.

Verminous Houses.

Public Health Act, 1936. Sections 83-85.

No cases required action during the year.

Nuisances and Notices re Dwellings.

Public Health Act, 1936. Sections 91-100.

During the year the following action was taken: 64 preliminary notices were served. In no case was it necessary to seek an Abatement Order from the Court.

Dangerous Buildings.

Public Health Act, 1936. Section 58.

Action was taken during the year in three cases.

Caravans.

Caravan Sites and Control of Development Act, 1960.

1961 saw the real commencement of operating the excellent legislation for controlling caravan sites. We were able to work in harmonious

and efficient co-operation with both Westmorland County Planning Authority and the Lake District Planning Board for their respective areas within your Rural District. The result of that amicable combination of powers was the adoption of a very high standard of requirements for the siting, equipping, and management of caravan sites.

I am confident that this method of setting off on the right foot will be to the ultimate benefit of all caravan users, the operators of the sites, and above all to our local residents in the District. We cannot be too careful about safeguarding the public health from the risks inherent in caravan sites. The operators have appreciated the point: there has not been one single appeal to the Courts against the stringent conditions which your Council attached to the site licences.

By the end of the year 54 caravan site licences were in force. They covered a maximum total number of 547 caravans permitted on the sites, usually with seasonal restriction to between 1st March and 31st October in each year. There were, however, included 16 licences for 17 caravans for permanent habitation, a practice which we discourage unless there are very special reasons for such a substandard choice or necessity.

We still feel the lack of sufficient overnight stopping-sites for touring caravans. With our District on the fringe of the National Park, and lying on the main traffic routes which our visitors use, we have to suffer a lot of mess and risk of disease from caravanners who stop overnight on our highway laybys. These places get very fouled for most of the summer.

Your Council and the Lake District Planning Board and the Westmorland County Planning Authority all are discussing the possibility of encouraging the establishing of proper overnight halt-sites for caravans near the main highways leading to the Lake District, and perhaps those leading to Scotland. Various sites have been examined, but so far the idea has not appealed to any landowners or potential operators. Overnight stopping-sites are just not a commercial proposition, unless a more regular income can be gained from long-stay caravans on the same site. Nobody seems to love the overnight caravanner, so he is forced to go making the mess he does; and we have to live with it.

Tents, Sheds and Moveable Dwellings.

Public Health Act, 1936. Sections 268-269.

At the year end there were no licences in force under the Public Health Act for sites which did not include caravans. This type of licence now covers mainly the tented camp sites.

A few other unlicensed camping sites are scattered throughout the

area, and some nuisance arises from casual campers' improvised sanitary arrangements and refuse disposal. Water is taken from polluted becks at their own risk.

As this District is in or on the fringe of the National Park, it is most desirable that strict but unobtrusive supervision should be exercised over camping sites, to ensure that the natural beauty of the country is not despoiled by the careless few.

With the improvement of caravan sites, there are occasional opportunities for tents to be allowed on the land as well. Provision has been made on two of our larger caravan sites for 40 tents, but on the whole these different patterns of life do not mix very happily: they seem better kept separate.

The itinerant gypsy folk cause periodical difficulties near the Devil's Bridge at Kirkby Lonsdale. They establish a variety of movable dwellings there for part of the summer, and they bring with them some inevitable extra risk to the public health.

There are signs of a growing tendency for Army Cadet units to come to this District for green-fields camps and adventure training. These camps are usually well organised, and our departments are glad to co-operate with the Services to safeguard the health of all concerned. Northern Command has established quite a good liaison arrangement to give us prior notice.

WATER SUPPLIES.

The water supply to your District is derived from many sources. The principal source of public supply is from your Lupton reservoirs, the mains from which extend into 19 parishes in the southern part of your area.

Your Council control and maintain other sources of supply in a further ten parishes. The Thirlmere and Haweswater aqueducts of Manchester Corporation pass through your District and are used for supplying some of the areas along their route.

The principal supply of three parishes and a supplementary supply in one parish are owned by commercial undertakings. About one-fifth of the houses in your District is dependent upon private supplies from wells, adits, springs, stored rain water or small watercourses. No public or organised private supply whatever is available in 12 parishes. Nine of these parishes cannot be economically included in any regionalised water supply scheme.

It must not be assumed that the supplies to all the above parishes are adequate. In a number of parishes very few houses are actually supplied from the sources named, but on the whole the general position has

shown a steady and commendable improvement. About 98 per cent of the houses in your District have a piped supply of some kind.

The quality of the public water supplies is generally fairly good, although some of them occasionally fall well below acceptable modern standards, and a few of them are frankly bad.

The laboratory results of examinations and analyses of the ten public laboratory results of examinations and analyses of the ten public supplies are set out in Appendix "A". I have no official knowledge of the quality of the myriad of private supplies, and I suspect that many of them are unsatisfactory in quality and very variable in quantity. I can do no more than warn the users that they drink it at their own risk, that they should have it tested for purity at regular intervals, and, if in doubt, they should boil it.

Special measures were maintained to safeguard the purity of the public supplies, in so far as it was possible to minimise the risks of some of them.

General Distribution.

The Minister requires me to state the number of houses and population in each of your parishes with water laid on and with water available from standpipes. The figures are set out in the Table.

Lupton Supply.

The parishes supplied are Arnside, Beetham, Crosthwaite, Helsington, Heversham, Hincaster, Holme, Hutton Roof, Levens, Lupton, Meathop, Milnthorpe, Natland, Preston Patrick, Preston Richard, Sedgwick, Stainton, Underbarrow and Witherslack.

The supply is upland surface water impounded into two reservoirs. Barkin House reservoir has a capacity of 8 million gallons and a top water level of 630 feet O.D. The catchment area is open fell land. The average rainfall over 20 years was 51 inches.

The other reservoir is at Tarnhouse, with an available capacity of 49 million gallons, and a top water level of 595 feet O.D. The catchment area is open fell land and some arable land. The rainfall is the same as for Barkin House.

These waters are mixed and filtered through Bell's pressure filters, and are chlorinated before distribution into the mains system. The reservoir is used for fishing under your Council's licence. The quality of the treated water is good.

There are latrine and washing facilities at the Lupton filter-house,

PUBLIC WATER SUPPLY DISTRIBUTION.

Year ended 31st December, 1960.

Parish	Houses	Public Supply		Organised Private Supply		Other Private Supply	
		Laid on	Not Laid on	Laid on	Not Laid on	Laid on	Not Laid on
Arnside	577	572	—	—	—	5	—
Barbon	86	67	—	—	—	15	4
Beetham	390	385	—	—	—	4	1
Burton	230	229	—	—	—	1	—
Casterton	76	65	—	—	—	11	—
Crook	130	—	—	—	—	123	7
Crosthwaite	183	103	—	—	—	67	13
Dalton	26	20	—	—	—	6	—
Dillicar	25	—	—	—	—	14	11
Docker	13	—	—	—	—	12	1
Fawcett Forest..	13	—	—	—	—	13	—
Firbank	31	—	—	—	—	27	4
Grayrigg	56	33	—	—	—	20	3
Helsington	82	64	—	—	—	18	—
Heversham	153	152	1	—	—	—	—
Hincaster	42	39	—	—	—	3	—
Holme	226	225	—	—	—	—	1
Hugill	140	110	—	—	—	29	1
Hutton Roof....	55	47	—	—	—	6	2
Kentmere	38	—	—	—	—	35	3
Killington	41	—	—	—	—	38	3
Kirkby Lonsdale	500	437	—	50	—	13	—
Lambrigg	30	1	—	—	—	25	4
Levens	291	284	—	—	—	6	1
Longsleddale....	28	—	—	—	—	28	—
Lupton	55	45	—	—	—	10	—
Mansergh	38	—	—	17	—	18	3
Meathop	44	38	—	6	—	—	—
Middleton	42	—	—	—	—	39	3
Milnthorpe	558	551	6	—	—	1	—
Natland	116	116	—	—	—	—	—
Nether Staveley	223	191	—	—	—	32	—
New Hutton	57	21	—	—	—	36	—
Old Hutton	80	55	—	—	—	22	3
Over Staveley ..	178	156	3	—	—	19	—
Patton	17	—	—	—	—	16	1
Preston Patrick	121	102	—	—	—	19	—
Preston Richard	241	237	—	—	—	4	—
Scalthwaiterigg..	38	—	—	27	—	10	1
Sedgwick	52	43	7	—	—	2	—
Skelsmergh	75	40	—	—	—	34	1
Stainton	103	93	—	—	—	10	—
Strickland Ketel	306	1	—	253	4	34	14
Strickland Roger	81	3	—	54	—	23	1
Underbarrow ..	104	52	—	—	—	49	3
Whinfell	23	—	—	—	—	21	2
Whitwell & Selside	46	14	—	—	—	31	1
Witherslack	129	83	—	—	—	40	6
	6189	4674	17	407	4	989	98

and improved safety arrangements were made during 1960 against repetition of the minor accident with chlorine gas.

Staveley Supply.

The parishes are Hugill, Nether Staveley and Over Staveley. The source is spring water from a disused mine-working in the Kentmere valley. The water gravitates to an adit and is collected at 532 feet O.D. The water is untreated and is good in quality. The quantity is more than adequate, but the size of the main limits any great extension of the area to be served.

Kirkby Lonsdale Supply.

The source is from a water-bearing gravel bed at Fleet. The depth of the collecting chambers is about nine feet with a top water level of 330 feet O.D. The gathering ground is not defined but it is estimated to be at least 261 acres, of which your Council own 2.3 acres. The quantity of the supply has been abundant for some 70 years and the quality has generally been good except for plumbosolvent tendencies. The water passes untreated to the consumers.

On rare occasions the bacteriological results have been poor, and at one time we had trouble with the overflow from one of the nearby becks. I have never been too happy about the risks of this peculiar source, lying as it does in a ridge on the narrow watershed between the Lune and Kent river systems. There seems little chance of human pollution, and the water is undoubtedly filtered through alluvial or glacial gravel. The greatest risks for the future seem to lie in the fact that the source lies so shallowly under fields which may be treated with all sorts of fertilisers and chemicals, in the course of modern good husbandry practice. Your Council seem to have little or no control over this possibility, and I consider that this risk need constant vigilance.

Casterton Supply.

The source is from springs at 480 feet O.D. and from surface waters. The quality is indifferent. The surface water component of this supply is undesirable drainage from pasture land and is used only when the yield of the springs fall below the demand. Chlorination was installed in 1952 and has improved the safety of this supply, but the whole system is a poor one and ought to be replaced by a safer and more constant source of supply. Perhaps the Haweswater aqueduct will meet the need.

During dry periods it was found necessary to pump water out of an adjacent beck to augment the supply. Apart from the fact that the watercourse was well paddled with cattle, the fields further upstream had been ploughed. Knowing what dangerous chemicals are nowadays spread on the land, and in spite of chlorination, I have increasing misgivings about the safety of these desperate attempts to supply Casterton with water at all costs. This sort of improvisation ought not to go on. It is high time that the remedy should be tackled in the proper way.

Barbon Supply.

The source is from springs at 450 feet O.D. The quality is intermittently bad, but a chlorination plant was installed during 1960 to give a welcome improvement. Earlier work was done to pipe in the fell runners near the road, but the supply still seems very vulnerable to pollution on the farm lands. These works can only be a partial remedy for a supply which is intrinsically poor and which ought to be replaced by a safer source. It may be that the new Haweswater aqueduct could solve your Council's difficulties with the Barbon, Casterton and Kearstwick supplies, all of which I regard with misgivings.

Grayrigg Supply.

The source is partly from a small spring and partly from upland surface water from uninhabited fell grazing ground, some 57 acres in extent, none of which is owned by your Council. The water is collected in a small tank with a top water level of 670 feet O.D. and is untreated.

Just at the end of 1950 your Council altered the headworks to ensure that the supply was derived only from the small limestone spring, because fell drainage operations seemed to have aggravated the long-standing trouble of heavy sediment after rains from the upland surface gathering-ground.

After this work the appearance of the water showed great improvement, although it was considerably harder. In 1952, however, it was found that the lead in solution was 0.8 parts per million, which is about eight times the safe level. This seemed to be due to a vein of soluble lead in the limestone source, and in time it might have caused chronic lead poisoning.

The spring was therefore disconnected from the supply and the upland surface source restored until an alternative satisfactory permanent scheme can be evolved. Although of course nobody can drink the water when it is thick with suspended matter after rains, the

local people have to manage with it in between times. I do not think it would be very good for visitors to drink, but it is amazing what the human stomach can stand.

An alternative source in the Fellgate area was explored, but rejected in favour of a more comprehensive scheme to supply a wider area from the Haweswater Aqueduct. The replacement of the existing bad supply to Grayrigg village is long overdue, and it ought to be a priority task for the new Water Board if your Council cannot make a start with it before then, and I hope that the supply may be extended to serve the adjoining areas of Whinfell Parish, where the farms are not all safely watered.

Burneside Supply.

This private commercial supply has its sources in upland surface gathering ground on Potter Fell. The water is chlorinated and the results in recent years have been very satisfactory.

Your Council agreed in principle to take over this supply area and join it to the Staveley mains. Your Engineer has prepared a scheme, but progress is hanging fire rather badly. All desire to do anything has been quenched by the nearness of the takeover by the Lakes and Lune Water Board.

Garth Row Supply.

This small scheme is upland surface water which was poor in quality. A large storage tank was constructed in 1948. It is proposed to take an alternative supply from the Haweswater aqueduct when available. In the meantime the supply runs so short that your Council often have to resort to the expensive and bothersome expedient of taking water in carts.

Kearstwick.

This is a private supply system from Terrybank Tarn. It is not impressive from the public health aspect, and it would be better replaced by a supply from the Haweswater aqueduct.

General.

Those supplies which show poor or indifferent bacteriological results are in the main due to the upland gathering grounds being grazed by stock, with the consequent manurial contamination of the water after rainfall. The bacterial counts fluctuate widely according to the climatic conditions, and as most of your public waters are untreated the contamination tends to be a nuisance in laboratory control rather than

any particular danger to the consumers. Certain sources, however, require constant supervision against possible human pollution.

Modern standards really require you to provide a sterilised water, and it is by those standards you will be judged by the Minister when regrouping comes. I think you would be wise to adopt a policy of progressive sterilisation of all your supplies.

Natural Radioactivity of Drinking-Water.

Samples of water were taken during 1961 from the headworks at the two upland surface sources, and the five underground sources, which provide the public drinking-water for your District. In all instances the natural radioactivity was very low, being less than 0.7 micro-micro-curies of gamma activity per cubic centimetre.

Similar tests were made in the same year on all the other public drinking-water supplies throughout Westmorland, where varying small levels of natural radioactivity were found in sources derived from the sedimentary rocks. The results of these tests for natural radioactivity are mainly of pure scientific interest at the present time. It is too early to assess what effect, if any, there might be on health.

No estimations were sought for beta activity, the fallout of fission products from atomic bomb tests in other parts of the world. The reason was that the requisite elaborate radiochemical analysis facilities are not reasonably available to us. Nevertheless, the fallout has been regularly monitored by various other authorities who use a nearby area as one component in building up a picture of the national and international pattern of deposition from the atmosphere. From time to time they publish selected results of their findings, so we are able to get some idea of what comes down with our local rainfall. But at the present time too little is known about the effects of these fission products upon the human body and future generations. All we have to remember is that we are in the second half of the 20th century.

Regrouping Water Undertakings.

1960 saw the culmination of Westmorland's rearguard battle with the Minister of Housing and Local Government. It had long been the Government's policy to encourage voluntary combinations of small water undertakings into larger Water Boards, but the various Westmorland authorities preferred to run their own local systems. Under the threat of compulsory amalgamation they decided that it would be better to be forced into two small boards rather than one

large board, and so your Council have become a member of a southern small group of County Districts.

From a public health point of view I cannot see much increased hope of any dramatic improvements in the public water supplies in the next five years. On the contrary I foresee delays while this re-grouping revolution sorts out its own domestic affairs and administration. Only when the new Board has settled down shall we be able to pick up the threads of operational interest in delivering the goods to the consumers.

If any changes were to be forced upon us, I should have much preferred to see reorganisation tackled in a more radical way. This present minor re-grouping phase is an obvious move towards regional control and the future establishment of Water Conservation Areas in the whole of the national interest. It might have been just as easy, if not easier, to anticipate regionalisation by amalgamating with Manchester Corporation Waterworks. Their two huge aqueducts from Thirlmere and Haweswater already pass right across your District, and we already take considerable bulk supplies from them. The replacement of some of our obsolete local sources lies invitingly alongside those aqueducts. Manchester already maintain large depôts of material and skilled staff in our area. How logical it might have been to think much further ahead than the nineteen-sixties. It would have helped the public health a lot. Our public health problems transcend national and local politics. I want to see enough safe water delivered into our peoples' houses. The aim is as simple as that.

So 1961 will be the last full year of your Council's historical role as the statutory water undertakers for your District. Next year will see the transfer of functions to the newly formed Lakes and Lune Water Board.

Your Council will of course continue to check that the quality of the public water supplies is maintained safely for the public health, and you may also wish to press the Water Board to extend the areas of supply to some parts of your District still in need.

We shall continue to operate the excellent liaison arrangements with the Westmorland officers of the Ministry of Agriculture, Fisheries and Food, for the joint investigation and assessment of applications for grant-aided farm water supply schemes. I have been most grateful for the long-standing co-operation of the Ministry's Regional Advisory Bacteriologist and the other staff at the Regional Headquarters in Newcastle-upon-Tyne. It enables us to co-ordinate the safeguards to the public health as well as the agricultural interests.

The Future Water Schemes proposed by your Council. Crook.

An outline scheme for a small public water supply for a group of 35 houses in Crook was prepared and submitted to the Ministry of Health during 1950, but no real progress was made since and it seems that the scheme is now moribund.

Plantation Bridge.

In 1955 I drew your Council's attention to the deplorable state of many private water supplies in the hamlet. Some houses are served with untreated water from a dirty beck, just below other peoples sewage tanks. I have given local warning of the risks, and supported your Council's request to the Government that a remedial scheme should receive priority in spite of whatever credit squeeze happens to be in force at the moment. Your Council proposed to extend the Staveley public water main to Plantation Bridge, and maybe sometime take it further on into the Burneside system. The situation has arisen through haphazard building development, and has progressively deteriorated. The present position is that the dangers persist while financial arguments and contemplation of possible Water Boards drag on. It is a very poor show.

An odd Private Water Supply Problem.

Your Council encountered considerable difficulty during 1961 with a polluted private water supply at Brigsteer. On complaint of the strange appearance of a farm supply, we put green dye into the water-closet and cesspit of a house further uphill. The dye came straight through the limestone rock into the private water supply for several milk-producing farms and other houses nearby. It was rather a shock for them.

After a lot of argument with the various owners and occupiers, the drainage system of the house uphill was entirely reconstructed and most of the people asked for an extension of the public water main from Brigsteer village, which was completed the same year.

Some dangers still remain in the use of this group of springs, known as Kist Well, and the people who go on using the water do so at their own risk. However, the Ministry of Agriculture, Fisheries and Food intervened in the cases of the milk-producing farms, licences were involved, and the fate of one farm had not been reprieved by the year end.

All limestone springs are notoriously tricky to use and maintain safe. The course of underground water is quite unpredictable, and it is liable to change with the varying levels inside the rock, the rainfall, and whatever building development takes place uphill.

I am full of sympathy for the fate which overtook the users of Kist Well; it is hard luck to lose a free supply and have to think of paying a water rate, or a metered charge, but I think that they would do better to accept it philosophically and all get their premises permanently connected to the public water mains. It could so easily happen again, and it is not a nice thought.

Bannisdale as a Reservoir.

1961 saw a major battle with Manchester Corporation to prevent Bannisdale, in the north-east of your District, being flooded to provide an additional reservoir to augment the city's supplies from Thirlmere and Haweswater.

The local objections were founded on the damage to amenities and the loss of agricultural land. Manchester Corporation had linked their claim on Bannisdale with their much more controversial demands upon Ullswater. Their proposals were rejected by the House of Lords shortly after the year end.

It seems possible that Manchesters claims on Bannisdale may be re-opened, and in any case, some of the Westmorland statutory water undertakers themselves had earlier formulated the idea of constructing a reservoir in Bannisdale.

So the fate of this valley in your District may yet have to be decided by further battles with the Lakes and Lune Water Board, Manchester Corporation, the Lake District Planning Board, the Westmorland County Council, the landowners and occupiers, and anyone else who cares to join in. There is never any shortage of combatants near the National Park. Meanwhile Bannisdale is still yours.

SEWERAGE.

Public Health Act, 1936. Section 14.

Public sewers and 16 disposal works exist in the more populous parts of twelve parishes, and in three other parishes there are systems installed by commercial undertakings. The rest of your District relies upon individual septic tanks, cesspools or drainage into watercourse, or still retains the more primitive practices associated with privies, privy middens, pails and earth-closets. This position is due to the lack or late installation of the public water supplies in these areas.

Your Council are fully aware of these deficiencies and are planning considerable extensions of the public sewerage system, and are improving, or replacing some of the existing disposal works which have become obsolete or inadequate for present and future requirements. Many areas will still have to await the public water supply before their insanitary conditions can be properly remedied.

Even when the public water supply arrives it will not be economically practicable to install comprehensive sewerage and full treatment sewage disposal plants, and the smaller villages or hamlets can be fairly well served by group septic tanks where the soil is suitable for irrigation with the effluent. Isolated houses must perforce rely upon this method of drainage.

Sewage Disposal Methods and Works.

Public Health Act, 1936. Section 15.

Arnside.

This plant consists of a tank on the shore fed by a sewer with a very poor fall, and embarrassed by tidal action. The effluent is discharged into the estuary and is often not of a very high standard. The whole of Morecambe Bay is, however, so grossly polluted with sewage that your contribution, although undesirable, is negligible in quantity. The sludge is pumped up to an old quarry at New Barns, where there are obsolete and inefficient so-called drying-beds. I do not like the Arnside arrangements and I would recommend that alternative arrangements should be adopted for sludge drying and disposal.

Staveley.

This is a modern plant situated near Hundhow on the Back Road to Burnside. It consists of detritus tanks, sedimentation tanks, rotary percolating filters, humus tanks, storm water tanks and sludge drying-beds. The effluent passes into the adjacent River Kent and is usually of good quality. I am satisfied that these works are capable of producing good results and are adequate for the anticipated growth of the area.

Kirkby Lonsdale.

These works are situated on the Whittington Road near Robrairie. The design is old-fashioned, and the results appear to be variable. There are detritus tanks, sedimentation tanks, and percolating filter beds from fixed sprinklers, storm water tanks, and sludge drying-beds. The effluent passes into the adjacent River Lune. This plant is decaying and I think it will be inadequate to deal with the new housing

development in a few years. The Council prepared plans for the reconstruction of the works, and progress is being made gradually towards starting something happening. In the meantime it is difficult to do more than patch up an aged plant, and try to placate the Lancashire Rivers Board who are constantly grumbling about the effluent. The place is rather a pathetic sight for the middle of the 20th century.

Milnthorpe.

The new disposal works were brought into use during 1952 and are working well.

Beetham.

The new disposal works were brought into use during 1955 and are working well.

Burton.

A complete new set of sludge beds were constructed during 1956, enabling the sludge effluent to be pumped back for further treatment. This is a great improvement and helps to meet the criticisms of the Lancashire Rivers Board.

Crooklands.

A small scheme was carried out during 1957 to provide a much needed improvement.

Bowston.

The new disposal works were brought into use in 1958 and are working well. A great improvement can be seen in the village.

Casterton.

A scheme for the modernisation of this small works was completed in 1960. It should remedy the pollution into the River Lune.

Grayrigg.

Your Council submitted a scheme to the Minister of Housing and Local Government, and his Inspector held a Local Inquiry during 1959. Approval was obtained for the comprehensive sewerage of Grayrigg Village, and the installation of a small sewage disposal plant on the south side. The work was commenced in 1960 and completed during 1961. A very welcome improvement.

Holme.

As a preliminary to the reconstruction of these works, investigations were carried out to find the extent of infiltration of ground water into the sewers. This was found to be particularly bad over a

considerable area of the system and approval was given to the re-laying of some 900 yards of 9-inch diameter sewer as a first step towards its relief. It is expected to complete this length during 1962.

Other Works.

The other sewage disposal works are small installations at:—

Sedgwick	...	Riverside, Sedgwick.
Heversham	...	Marsh Lane, Heversham.
Endmoor	...	Challon Hall, Preston Richard.
Levens	...	Three small tank schemes.
Storth	...	One small tank scheme.
Hutton Roof	...	One small tank scheme.
Whassett	...	One small tank scheme.
Mealbank	...	One small private scheme.

Some of these work fairly well, some require improvements and renovations, and some are obsolete.

Proposed New Sewerage Schemes.

Levens.

A sewerage scheme was prepared many years ago, but, due to various difficulties, it was not until 1955 that it came to the state of inquiry by the Ministry. Although approved in principle, permission to start work was withheld on account of national financial restrictions.

Meanwhile Levens was suffering increasing difficulties. The extra load of new houses and the progressive clogging of the ground around the tank caused intermittent nuisance, and we settled down to a race between the cesspool emptying gang and the inhabitants of Levens, with no expense spared. A bigger and better tank was built during 1957, and, after the sewage effluent had flowed on to the road, the tail drain was extended to the lower side. Conditions are certainly a little better, but these are only stop-gap measures until a proper disposal plant can be installed.

Better progress was made during 1960 towards the new scheme, and work was commenced in 1961. It was still in course at the year end, but we are getting within sight of solving these longstanding troubles with Levens.

Natland.

Your Council decided during 1961 to install a sewerage system in Natland and instructed the Engineer to submit a scheme. This was in course of preparation at the year end, but it has slipped down the priority list.

Storth and Carr Bank.

During 1961 your Council adopted in principle a combined scheme of sewerage and sewage disposal for the areas of Storth, Carr Bank, and Arnside. Preliminary survey work has been started. Such a scheme would remedy the present unsatisfactory plant at Arnside.

Cesspool Emptying.

The Council were saved many difficulties by having the cesspool emptying vehicle, with a mechanical pump, to deal with the sewage plants on their housing estates.

If the volume of this work increases further and anything like a full scale service has to be operated, consideration will have to be given in the near future for the provision of a vehicle specifically designed for the purpose. 362 visits were made to cesspools needing attention, many on your own Council housing estates.

Prevalence of Water Closets.

At the time of the 1951 Census your District held 5,150 households, of whom 1,481 (or about 29%) were entirely without a water-closet, and another 214 had to share one. There has been steady improvement, so that there are now water-closets in almost every house in the parishes where there is enough water and where sewers are easily accessible. In the more isolated areas it is more difficult; about 600 houses still use more primitive ways, but in the post-war period the number of houses without a water-closet has dropped from 1,810 to number of houses without a water-closet has dropped from 1,810 to 605.

This improvement has not only been by the conversion of privies, but also the changeover from pails to water-closets. This is a very good achievement.

Improvements achieved during the year.

Privy-closets and middens abolished and w.c's provided	...	40
Pail-closets abolished and w.c's provided	... ..	53
New septic tanks installed	... ..	65
Tanks emptied by the Department	... ..	136
Septic tanks abolished	... ..	5

Notices served re Sanitary Accommodation and Drainage.

Insanitary privies and privy-middens	... ..	45
Defective sanitary pails	... ..	5
Insufficient drainage systems	... ..	53

Public Conveniences.

Public Health Act, 1936. Section 87.

Public conveniences are maintained in Arnside, Milnthorpe, Staveley and Kirkby Lonsdale. In all the conveniences constant supervision is required to deal with the public misuse to which they are subjected. It is a curious trend in public morals for toilets to be so defiled with careless excretion, obscene and perverted mural decorations, and so often damaged by wanton destruction of the actual fittings.

Conveniences are needed in all the populous villages, particularly to deal with the increasing motor-coach traffic. The systematic defiling of our village back streets and yards continues mainly because the visitors are offered no alternative. The present time may not be opportune for embarking upon any extensive scheme of public lavatories, but I regard their ultimate provision as a much needed public health measure rather than a source of income to your Council.

The Staveley convenience was constructed during 1949 and is incorporated in a 'bus shelter and this pattern could be followed to great advantage elsewhere.

There is periodical agitation to secure a public convenience at Sand-side. Your Council is sympathetic to the need, but have not yet found a way to overcome the local difficulties.

The Devil's Bridge at Kirkby Lonsdale presents a seasonal need for the people who cannot be bothered to walk the 600 yards to the public conveniences in Jingling Lane.

PUBLIC CLEANSING.

Refuse Collection.

Public Health Act, 1936. Section 72.

The refuse collection service covers all except the most outlying parishes in your District. In the more urbanised areas of the Kent and Lune valleys there is a weekly service. All pail-closets are also emptied weekly. Most of the remaining areas have a fortnightly collection.

Where regular collections are not economical, it has been possible for the refuse lorries to make an occasional tour along certain defined routes to collect from isolated hamlets and farms, after prior notice to the residents. Not only has this service been much appreciated, but it has reduced the casual indiscriminate dumping of refuse in roadside pits and quarries.

The ability of a large capacity waggon to clear a growing district

has been clearly proved, together with the considerable advantage of dustless loading. The composition of refuse is changing, and it is now a problem of carrying bulk rather than weight.

Refuse Disposal.

Public Health Act, 1936. Section 76.

Disposal of refuse is carried out by tipping on three of your Council's sites. Since 1951 there has been a most commendable improvement in the introduction of controlled tipping as a gradual replacement of the crude dumping which was the former practice of your Council. Controlled tipping is difficult here, often there is neither sufficient labour on the sites nor sufficient covering material, with the result that occasional nuisances occur. The natural beauty of the countryside ought not to be desecrated by multiple dumps of ugly human refuse.

The progressive reorganisation and expansion of the refuse collection services is now overtaking the labour available. There is always a plea to extend the areas of collection, but we have reached the stage when only another complete crew with an additional lorry is the answer. The service can be as extensive as people care to pay for: that is your Council's function to assess.

The increased bulk of refuse being received at your Slackhead tip has needed an extra man on the site for two or three days each week.

The standard of other tips has been kept up, but until more labour is available some shortcomings may occur. Fire is a constant risk, and a 700-gallon emergency water tank has been installed at Slackhead.

The more I see of the Kirkby Lonsdale tip the more I am convinced that it never ought to have been put there, and the sooner it is closed the better. Much improvement has been made lately to observe controlled tipping, and this technique is strictly obligatory.

Inspection re Refuse Collection, Accommodation and Disposal.

Inspections and visits re ashplace accommodation complaints, surveys, etc.	172
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Notices served re Refuse Services:—

Number of notices served re accumulations	7
„ „ defective dustbins	...	...	36
„ „ insanitary ashpits	...	...	1

Salvage of Waste Material.

Salvage is not done because there is no sale for the material.

Street Cleansing.

Public Health Act, 1936. Section 77.

In the few areas where street cleansing is undertaken by your Council the streets are well maintained. The County Council undertake the remainder and maintain a similarly high standard.

FOOD AND DRUGS.

General Powers.

Food and Drugs Act, 1955.

Your Council bear most of the statutory responsibility for safeguarding the public from foodborne disease. The main aim is directed towards securing proper and hygienic conditions for the manufacture, preparation and sale of food. The secondary aim is to trace and localise any outbreaks of disease which may occur in spite of preventive measures.

Precautions against Contamination.

Food Hygiene Regulations, 1955.

Food and Drugs Act, 1955. Section 13-15.

Food hygiene is steadily improving throughout your area. Public opinion is well ahead of the law and most traders are aware of the fact. The good food trader does not need official instruction in basic cleanliness or the enforcement of legal minimum standards. He may welcome advice on technical problems, but his aim is how high he can get, not how low he can get away with.

The responsibility for safe food does not rest entirely with the trader as the housewife must play her part as well. Quite a lot of strange things happen to food between the shop counter and the dinner-plate, and the educational campaign has had to be carried into the home. Foodborne diseases, mild dysenteries and attacks of diarrhoea and vomiting are not infrequent in our homes and among our visitors. I am confident that higher standards will reduce these preventable diseases.

Ice-Cream Trade.

Food and Drugs Act, 1955. Section 16.

Ice-Cream (Heat Treatment, etc.) Regulations, 1947.

The following premises were registered under Section 16 of the Food and Drugs Act, 1955:—

Manufacture by hot mix, cold mix, storage and sale	...	1
Manufacture by cold mix, storage and sale	... ..	4
Storage and sale only	... ..	68

Prepared Meats.

Food and Drugs Act, 1955. Section 16.

The number of premises on the Register for the preparation of sausages, potted meat, preserved meat and pickled foods was 13.

Registration of Milk Distributors and Dairies which are not Dairy Farms.

Milk and Dairies Regulations, 1959. .

Total number of registered Distributors	...	...	...	18
„ „ Dairies	...	...	...	3

The retail distribution of milk is both by bottled milk and the old-fashioned loose method. Traders are becoming keener to meet the desire of the enlightened consumer for bottling. Milk-round vehicles are maintained generally in a clean condition.

Pathogenic Organisms in Milk.

Food and Drugs Act, 1955.

No samples were taken. With the eradication of bovine tuberculosis it seems likely that the next milkborne disease to be tackled will be brucellosis. I believe that many human cases go unrecognised.

No notices were issued under the Milk and Dairies Regulations prohibiting persons from taking part in dairying activities.

Slaughterhouses.

Food and Drugs Act, 1955. Part IV.

Slaughterhouses Act, 1958.

Slaughter of Animals Act, 1958.

Most of your District relies upon the public abattoir in Kendal, but your Council granted one licence for a private slaughterhouse in Kirkby Lonsdale to serve the Lune Valley areas.

In accordance with Section 3 of the Slaughterhouses Act, 1958, consultations were held with the meat trade, the farmers, and other interested parties about the future policy for slaughtering in the District, and how the existing premises might be brought up to the raised standards now required by law. Your Council then submitted during the year their statutory report to the Minister of Agriculture, Fisheries and Food, and recommended that 1st July, 1961, should be the date for operation of the regulations concerning the structural requirements. The report was approved by the Minister.

A revision was made during the year in the number of licences issued to slaughtermen. There are now three in force.

Condemnation of Meat at the Abattoir.

Food and Drugs Act, 1955.

The following is a summary of the carcasses inspected and condemned in whole or in part:—

	Cattle including Cows	Calves	Sheep and Lambs	Pigs
Number killed (if known)	297	3	666	146
Number inspected ..	297	3	666	146
<i>All diseases except Tuberculosis and Cysticerci:</i>				
Whole carcasses condemned	—	—	—	—
Carcasses of which some part or organ was condemned	16	—	13	—
Percentage of number inspected affected with disease other than tuberculosis and cysticerci	5.4%	—	1.9%	—
<i>Tuberculosis only:</i>				
Whole carcasses condemned	—	—	—	—
Carcasses of which some part or organ was condemned	—	—	—	3
Percentage of number inspected affected with tuberculosis ..	—	—	—	2%
<i>Cysticercosis:</i>				
Carcasses of which some part or organ was condemned	17	—	—	—
Carcasses submitted to treatment by refrigeration	3	—	—	—
Generalised and totally condemned	—	—	—	—

Condemnation of Other Foods.

Food and Drugs Act, 1955.

The following foodstuffs were condemned during the year:—

Corned Beef	...	...	18½ lbs.
Pork Loin	...	...	50 „
Tinned Ham	...	...	16½ „
Ox Tongue	...	...	5 „
Beans in Tomato	...	...	202½ „
Tinned Plums	...	...	1¼ „
Tinned Garden Peas	...	...	¾ lb.
Evaporated Milk	...	...	1 tin
Sliced Beans	...	...	3 tins
Prunes	...	...	75 lbs.
Wet Fish	...	...	28 „
Frozen Beasts Kidneys	...	...	3 prs.

Method of Disposal of Condemned Food.

The Minister of Health requires me to describe the current methods for the disposal of condemned food. In this District it is by burial at Slackhead tip.

GENERAL INSPECTIONS.

Your Council employs one Chief Public Health Inspector and two additional Inspectors, one of whom is part-time with seven sessions per week. The salary is apportioned between the public health inspection duties and the other duties in a proportion approved by the Minister of Health.

The duties connected with building inspections, housing management and planning legislation have been progressively increasing in recent years.

Summary of Inspections carried out during the year.

Dwelling-houses inspected with a view to Statutory action under the Housing Acts	...	...	...	...	...	...	...	7
Dwelling-houses inspected with a view to informal action under the Housing Acts	...	...	...	...	...	...	...	83
Number of inspections for this purpose	...	...	...	...	...	...	...	174
Visits and inspections re Improvement Grants	...	...	...	...	...	...	...	124
General inspections and visits for nuisances (excluding above)	...	...	...	...	...	...	...	122

Visits and inspection re movable dwellings and camping sites	146
Bakehouses inspected	3
Ice-cream premises visited and inspected	7
Factories and Workshops — visits and inspections	27
Inspections re drainage works — existing and new premises...	741
Inspections and visits re private water supplies	21
Inspections re food preparing premises	49
Inspections re licensed premises	2
Inspections re building works	1,071
Visits and inspections re temporary buildings	46
Inspections re accumulations	10
Visits and inspections re refuse service	172
Inspections re septic tanks	59
Visits and inspections re sanitary accommodation, privies, privy-midden, pails, w.c's	97
Visits to slaughterhouses	108

Offensive Trades.

Public Health Act, 1936. Section 107.

There are no offensive trades in the District.

Factories.

Factories Act, 1937-1959.

There are 90 factories on the Register. 27 inspections were made and no written notices were served. No references were made to H.M. Inspector and none were received from him. No prosecutions were required.

One outworker was notified to your Council by factory owners, and I have no official knowledge of any cases of default in this respect.

There are no basement bakehouses in the District.

It has not been possible in the past to perform these duties in an adequate manner, but it is hoped that next year may bring some improvement. Liaison with H.M. Inspector is very good and there is no reason to believe that factory conditions have suffered unduly by the arrears of work incurred. The register of factories has been completely revised and cross-checking with H.M. Inspector carried out.

H.M. Inspector of Factories has been sent details of your Rural District's administration of the relevant sections of Parts I and VIII of the Factories Act, 1937.

Factory Inspections.

Premises.	Number of Premises.	Number of		
		Inspections.	Written Notices.	Occupiers prosecuted.
Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities ..	2	—	—	—
Factories not included in (1), in which Section 7 is enforced by Local Authority	88	27	—	—
Other premises in which Section 7 is enforced by the Local Authority (excluding out-workers' premises)	—	—	—	—
Total	90	27	—	—

Cases in which Defects were found.

Particulars.	Number of cases in which Defects were found.				Number of cases in which prosecutions were instituted.
	Found	Remedied.	Referred		
			To H.M. Inspector.	By H.M. Inspector.	
Want of cleanliness (S.1) ..	—	—	—	—	—
Overcrowding (S.2) ..	—	—	—	—	—
Unreasonable temperature (S.3) ..	—	—	—	—	—
Inadequate ventilation (S.4) ..	—	—	—	—	—
Ineffective drainage of floors (S.6)	—	—	—	—	—
Sanitary Conveniences (S.7)					
(a) Insufficient	—	—	—	—	—
(b) Unsuitable or defective	2	2	—	—	—
(c) Not separate for sexes	—	—	—	—	—
Other offences against the Act (not including offences relating to Out-work)	—	—	—	—	—
Total	2	2	—	—	—

Shops Act, 1950.

28 shop premises were visited during the year. These duties are not adequately covered due to the prior claim of other work.

Common Lodging Houses.

Public Health Act, 1936. Part IX.

There are no common lodging houses in your District.

Pests Act, 1949.

Your District is covered by the South Westmorland Joint Pest Control Board. Regular visits are made to your refuse tips and sewers as well as to scores of private properties in your District. I look upon the systematic destruction of rats and mice as more than a blood sport: it is a very helpful contribution towards safeguarding the public from all sorts of unpleasant diseases carried by those animals.

Rent Restriction Acts.

No action was taken during the year and no rent book entries were reported to be irregular.

No disrepair certificates were issued during the year.

Smoke Abatement.

Public Health Act, 1936. Sections 101-106.

Clear Air Act, 1956.

Informal action was taken in three cases.

Rag Flock Act, 1951.

There is one registration.

Swimming Baths.

There are no artificial public swimming baths, but many places on the rivers and tarns and the Kent Estuary are used at the bathers' own risks.

Public Mortuary and Post-mortem Rooms.

Public Health Act, 1936. Section 198.

Your Council do not provide any public mortuaries or post-mortem rooms in the Rural District. Adequate facilities are available at the Westmorland County Hospital in Kendal by arrangement.

Exhumations.

The remains of one dead human body were exhumed during the year from Mansergh Churchyard by licence and under our supervision.

The remains were sent to Monmouthshire for re-interment according to the relatives' wishes. In that case there was no special danger to the public health.

National Assistance Act, 1946. Section 47.

It was not necessary during the year to deal with any cases requiring removal but two were under observation.

Such cases are extremely distressing to deal with and the course of compulsory removal is reserved to meet the emergencies of a last resort when all other methods of help have failed. Sometimes it is very hard to decide what is really in the best interests of the patient.

A special conference was held during 1961 with the Welfare Authority to see what more could be done to prevent people from getting into such difficulties. Home-help services, hostels, and partial dependency schemes may meet some of the problems. I hope that the harsh step of compulsory removal will be less needed as time goes by. It is so often tantamount to a death warrant.

Laboratory Service.

National Health Service Act, 1946. Section 17.

The Public Health Laboratory Services at Preston and Carlisle provide the necessary facilities for most of our public health investigations. But they are rather far away.

We are most grateful for the continued occasional help we still receive from the Kendal Hospital Laboratory for more urgent needs on the spot.

Byelaws.

Byelaws on public health matters are in force for:—

- Buildings.
- New Streets.
- Drainage of existing buildings.
- Slaughterhouses.
- Tents, Vans and Sheds.
- Food handling.

New Legislation.

Home Safety Act, 1961, became operative 18th May, 1961.

Public Health Act, 1961, became operative 3rd October, 1961.

Housing Act, 1961, became operative 24th November, 1961.

Factories Act, 1961, became operative 1st April, 1962.

APPENDIX "A".

Laboratory Examination of Public Water Supplies.

Nature of Test.	Standards Max.	Barbon	Burnside	Caster-ton	Garth Row	Gray-rigg	Kirkby Lonsdale	Lupton Raw	Lupton Treated	Staveley	Garnett Bridge
Pr. Coli count 37° Faecal coli/strep	3-10 0	40 +	0	0	180+ +	160 +	0	1 +	0	0	0
Character	—	Clear	Clear	Clear	Slightly Hazy	Clear	Clear	Slightly Yellow	Slightly Yellow	Clear	Clear
Reaction	—	7.0 Less than	7.0 Less than	7.5	7.0	8.5 Less than	6.5 Less than	7.5 Less than	7.0 Less than	7.5 Less than	8.4
Ammonical N.	.041	.02	.02	.05	.02	.02	.02	.02	.02	.02	.045
Albuminoid N.	.066	.02	.02	.07	.03	.11	.02	.28	.19	.02	.075
Total Solids.	1000	82	27	112	98	130	109	110	95	136	84
Hard-Total	300	36	19	58	40	63	55	34	40	69	14
ness { Carbonate	—	0	8	1	3	14	29	5	3	37	0
Non-Carb.	—	36	11	57	37	49	26	29	37	32	14
Chlorides	30	8	5	8	5	5	8	8.5	10	5.5	6
Nitrates	1.0	—	—	—	—	—	—	—	—	—	—
Nitrites	—	—	—	1.18	—	—	—	—	—	—	—
O ₂ Absorbed	1.0	.44	.5	1.18	.56	3.24	.04	2.12	1.38	.04	1.06
Heavy Metals	—	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Nil
Rainfall, 24 hours	—	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Date Sampled	—	14/6/61	19/6/61	12/6/61	3/7/61	26/6/61	19/6/61	17/7/61	17/7/61	3/7/61	8/12/53
Laboratory	—	Carlisle	Carlisle	Carlisle	Carlisle	Carlisle	Carlisle	Carlisle	Carlisle	Carlisle	Carlisle

Chemical analyses are expressed in parts per million.

